

## Gravi-Tech™ High-Density Compounds

High-Performance  
Lead-Replacement Solution

### Product Description

Gravi-Tech™ polymer-metal composites offer a high-performance thermoplastic-based alternative to lead and other traditional metals. Using a variety of metallic fillers, these compounds have densities similar to traditional metals, while offering design and processing flexibility.



### Value Solution

#### Improve safety and reduce costs with Gravi-Tech compounds

When Gravi-Tech polymer metal composites are substituted for lead, manufacturers can avoid the regulatory, disposal and employee exposure challenges associated with lead. Several grades of Gravi-Tech composites used for radiation-shielding applications provide protections similar to traditional lead-based materials, yet these Gravi-Tech polymer-metal composites are 37 percent lighter. Other radiation-shielding grades are available that match the density of lead (11 gm/cm<sup>3</sup>).

### Key Characteristics

The primary features and benefits of Gravi-Tech compounds are:

- **Customized density**, offering a wide range of specific gravities from 1.5 to 11 gm/cm<sup>3</sup>
- **Broad modulus range**, from very flexible to very rigid grades
- **Corrosion resistance**, withstanding oxidization for long-term use and benefit
- **Chemical resistance**, withstanding fuels, oils and other harsh chemicals

Additional features include:

- Design flexibility and processing ease
- Good impact strength
- Elevated heat deflection temperature





## Markets and End-Use Applications

Gravi-Tech composites are an excellent choice for applications in a full range of markets, including:

### Consumer

Golf clubs, fishing tackle, casino/gaming chips, exercise weights, hunting supplies, cutlery, appliances and hunting ammunition

### Healthcare

X-ray shielding, nuclear medicine transport containers, and laboratory furniture and equipment

### Industrial

Lead-free ammunition, reactor shielding, vibration and acoustical dampening, military/tactical equipment, airport x-ray shielding, various food ware, building and construction equipment, inertial weighting, and underwater cable weighting

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